CSE 246 Data Structures and Algorithms Assignment # 1 Topic: Stack Instructor: Quratulain

Issue Date: 16 Oct, 2009 Due date: 22 Oct, 2009

Note: The detailed explanations of algorithms can be found from lecture slides.

1. Write a java program for the parenthesis validation.
2. Write a java program for evaluating the result of postfix expression.
3. Write a Java program (a collection of Java classes) including a class named ExpressionCalculator that contains a static main method. This main method will prompt the user to enter a constant expression (i.e., a mathematical expression without variables) at the keyboard. The expression must be in infix notation and must use spaces to separate the tokens (operands and operators) of the expression. (This restriction is imposed to simplify the parsing of the input.) The only exception to the space-separation rule is for the unary minus prefix operator, which will be assumed to be part of the specification of a negative constant operand. The program will then evaluate the expression and display the result on the console. It will then wait for another expression to be entered for evaluation, terminating on an empty input.